

6. NOTES ON THE BEAVER IN THE ZOOLOGICAL GARDENS.

BY A. D. BARTLETT.

During one of the heavy storms of wind and rain that prevailed during the last month a large willow-tree was partly blown down. The limbs and branches of this fallen tree were given to many of the animals, and to them proved to be a very acceptable windfall. To the Beaver, however, I wish to direct especial attention, as this animal has exhibited in a remarkable manner some of his natural habits and intelligence. One of the largest limbs of the tree, upwards of 12 feet long, was firmly fixed in the ground, in the Beaver's enclosure, in a nearly upright position, at about twelve o'clock on Saturday last. The Beaver visited the spot soon afterwards, and walking round this large limb, which measured 30 inches circumference, commenced to bite off the bark about 12 inches above the ground, and afterwards to gnaw into the wood itself. The rapid progress was (to all who witnessed it) most astonishing. The animal laboured hard, and appeared to exert his whole strength, leaving off for a few minutes apparently to rest and look upwards, as if to consider which way the tree was to fall. Now and then he left off and went into his pond, which was about 3 feet from the base of the tree, as if to take a refreshing bath. Again he came out with renewed energy, and with his powerful teeth gouged away all round the trunk. This process continued till about four o'clock, when suddenly he left off and came hastily towards the iron fence, to the surprise of those who were watching his movements. The cause of this interruption was soon explained; he had heard in the distance the sound of the wheelbarrow, which, as usual, is brought daily to his paddock, and from which he was anxiously waiting to receive his supper. Not wishing to disappoint the animal, but at the same time regretting that he was thus unexpectedly stopped in his determination to bring down this massive piece of timber, his usual allowance of carrots and bread were given to him; and from this time until half-past five he was engaged in taking his meal and swimming about in his pond. At half-past five, however, he returned to his tree, which by this time was reduced in the centre to about 2 inches in diameter. To this portion he applied his teeth with great earnestness, and in ten minutes afterwards it fell suddenly with great force upon the ground.

It was an interesting sight to witness the adroit and skilful manner in which the last bite or two were given on the side on which the tree fell, and the nimble movement of the animal to the opposite side at the moment, evidently to avoid being crushed beneath it. Upon examining the end of the separated tree, it was found that only one inch in diameter was uncut; and it was of course due to the nearly erect position in which the tree was put into the ground that it stood balanced, as it were, upon this slender stem. After carefully walking along its entire length as it lay on the ground, and examining every part, he commenced to cut off about two feet of its length, and by seven o'clock the next morning he had divided it into three pieces: two of these he had removed into the pond, and one was used in the under part of his house.

The Beaver, the subject of the foregoing remarks, was presented to the Society by the Hudson's Bay Company, in the autumn of 1861, and was probably then about six months old. It is, no doubt, less vigorous than the large wild animals of this species, who would, in all probability, bring down trees of much larger dimensions in a shorter time. In fact, it was evident that our Beaver was a novice in the undertaking, as he more than once slipped and rolled over on his back in his eagerness to accomplish the task. It was impossible to witness the actions of this animal without being struck by the amount of skill and intelligence exhibited. When the space cut through towards the centre was too narrow to admit its head, its teeth were applied above and below so as to increase the width from the outside towards the centre, until the remaining parts above and below formed two cones, the apices of which joined in the middle. Again and again the animal left off gnawing, and, standing upright on its hind legs, rested its front feet on the upper part of the tree, as if to feel whether it was on the move. This showed clearly that the creature knew exactly what it was about.

7. DESCRIPTIONS OF THIRTY-SIX NEW LAND SHELLS, FROM THE COLLECTION OF H. CUMING, ESQ. BY DR. L. PFEIFFER.

(Plate XXXVI.)

1. *HELIX DANÆ*, Pfr. (172 *b*). *T. angustissime umbilicata, subturbinata, solida, superne arcuata, plicatula, striis spiralibus obsolete decussatula, cinnamomea; spira convexiusculo-turbinata, vertice minuto; anfr. 6½, convexiusculi, regulariter accrescentes, ultimus non descendens, medio subcarinatus, basi subtiliter striatus, pallidus; apertura obliqua, lunaris, intus submargaritacea; perist. simplex, rectum, margine columellari subarcuato-declivi, sensim ad insertionem subdilatato.*

Diam. maj. 32, min. 29, alt. 19 mill.

Hab. Lao Mountains, Camboja (*Mouhot*).

2. *HELIX MITIS*, Pfr. (447 *a*). *T. umbilicata, convexo-depressa, tenuiuscula, lævigata, diaphana, alabastrina; spira parum elevata, conoideo-convexa; sutura submarginata; anfr. 5, convexiusculi, sensim accrescentes, ultimus subdepresso-rotundatus; umbilicus angustissimus, via pervius; apertura parum obliqua, lunaris, intus nitida; perist. simplex, rectum, marginibus via convergentibus, columellari arcuato, superne subdilatato.*

Diam. maj. 16⅔, min. 15⅓, alt. 8½ mill.

Hab. Lao Mountains, Camboja (*Mouhot*).

3. *HELIX PLUTO*, Pfr. (595 *b*). *T. umbilicata, depressa, solidula, superne striis spiralibus et aliis antrorsum descendentibus minute sculpta, nitidula, fusco-nigricans, fasciis nonnullis pallidioribus notata; spira breviter conoideo-elevata, vertice obtusulo; anfr. 5½, convexiusculi, ultimus magnus, supra medium*